

**BEFORE THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA**

**DOCKET NO. 2019-185-E
DOCKET NO. 2019-186-E**

In the Matter of)
)
South Carolina Energy Freedom Act)
(H.3659) Proceeding to Establish Duke)
Energy Carolinas, LLC's and Duke Energy)
Progress LLC's Standard Offer Avoided)
Cost Methodologies, Form Contract Power)
Purchase Agreements, Commitment to Sell)
Forms, and Any Other Terms or Conditions)
Necessary (Includes Small Power Producers)
as Defined in 16 United States Code 796, as)
Amended) – S.C. Code Ann. Section 58-41-)
20(A))
)

**REBUTTAL TESTIMONY OF
GEORGE V. BROWN
ON BEHALF OF DUKE ENERGY
CAROLINAS, LLC AND DUKE
ENERGY PROGRESS, LLC**

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is George V. Brown. My business address is 400 South Tryon Street, Charlotte, North Carolina 28202.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am General Manager of Strategy, Policy, and Strategic Investment in the Distributed Energy Technology group at Duke Energy Corporation.

Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I did.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. My rebuttal testimony addresses certain arguments raised by Witnesses Jon Downey and Hamilton Davis on behalf of the South Carolina Solar Business Alliance (“SBA”), as well the testimony of Rebecca Chilton on behalf of the Johnson Development Associates, Inc. (“JDA”). Collectively, I will refer to these Witnesses as the “Solar Developer Advocates.”

My testimony first updates the Commission on the recent *Notice of Proposed Rulemaking on Qualifying Facility Rates and Requirements and Implementation Issues Under PURPA* (“PURPA NOPR”), issued by the Federal Energy Regulatory Commission (“FERC”) on September 19, 2019.¹ I then address

¹ *Implementation Issues Under the Public Utility Regulatory Policies Act of 1978*, 168 FERC ¶ 61,184 (Sept. 19, 2019) (“PURPA NOPR”).

1 arguments put forward by the Solar Developer Advocates regarding the purpose
2 and framework of Act 62, and explain that while portions of the legislation are
3 intended to promote the development of renewable energy in South Carolina, the
4 “indifference principle” of PURPA restricts the Commission from promoting the
5 development of one resource over another. I also respond to the Solar Developer
6 Advocates testimony about what they call “competition,” explaining that PURPA
7 requires the utilities to purchase power from QFs, and as a result, does not create
8 competition, either among QFs or among QFs and other generation sources. My
9 testimony explains that unlike administratively-determined avoided costs under
10 PURPA, the Companies’ Competitive Procurement of Renewable Energy
11 (“CPRE”) Program actually enables market competition between solar generators
12 to benefit customers by soliciting longer-term fixed purchased power contracts at
13 rates below avoided costs. I then refute the Solar Developer Advocates’ arguments
14 that QF contracts create less risk to customers than utility-owned generation, as
15 well as the notion that QF contracts could somehow shield customers from any risks
16 associated with utility-owned generation. Finally, I explain that there is no
17 requirement under PURPA or Act 62 that the Commission must ensure QFs have
18 access to “regularly available market rate financing.” In sum, these issues raised
19 by the Solar Developer Advocates illustrate a significant misunderstanding of the
20 purpose and requirements of PURPA, and the benefits and risks to customers of
21 administratively-established fixed-rate long term PURPA contracts.

1 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE REBUTTAL**
2 **TESTIMONY BEING FILED BY OTHER WITNESSES IN THIS**
3 **PROCEEDING.**

4 A. The Companies are also submitting rebuttal testimony of the following witnesses:

5 • **Glen A. Snider**, Director of Carolinas Resource Planning and Analytics,
6 supports the Companies' continued application of the peaker methodology to
7 quantify DEC's and DEP's avoided capacity and energy costs as well as the
8 calculation of DEC's and DEP's avoided cost rates to be paid to QFs pursuant to
9 PURPA.

10 • **Steven B. Wheeler**, Director of Pricing and Regulatory Solutions, supports
11 the Companies' standard offer Schedule PP tariff, standard offer power PPA, and
12 standard offer Terms and Conditions, including the administration of the
13 Integration Services Charge.

14 • **David B. Johnson**, Director of Business Development and Compliance,
15 supports the Companies' form of negotiated PPA that applies to QFs that do not
16 qualify for the standard offer PPA, along with the Notice of Commitment Form
17 available to Standard Offer QFs as well as larger negotiated PPA QFs

18 • **Nick Wintermantel**, Consultant and Partner at Astrapé Consulting,
19 supports the Astrapé Solar Ancillary Services Study developed on behalf of the
20 Companies, to quantify DEC's and DEP's ancillary services cost of integrating QF
21 solar, which is used to calculate the Integration Services Charge.

1 • **Sam Holeman**, Vice President, Transmission System Planning and
2 Operations, who testifies to the significant operational challenges that DEC and
3 DEP face in response to the current state of significant, uncoordinated and
4 unconstrained solar additions to our State’s energy grid, to support the
5 implementation of the Integration Services Charge.

6 **II. FERC’s SEPTEMBER 19, 2019 NOPR ON MODERNIZING PURPA**

7 **Q. YOUR DIRECT TESTIMONY HIGHLIGHTED THE ONGOING**
8 **NATIONAL CONVERSATION ABOUT PURPA, INCLUDING**
9 **COMMENTS BY THE NATIONAL ASSOCIATION OF REGULATORY**
10 **UTILITIES COMMISSIONERS (“NARUC”) TO FERC AND BEFORE**
11 **CONGRESS ABOUT THE OVER-PAYMENT RISK OF LONG-TERM**
12 **FIXED RATES UNDER PURPA. DID ANY OF THE OTHER**
13 **INTERVENORS ADDRESS THIS?**

14 **A.** No. SBA Witness Davis provides his perspective on why PURPA was initially
15 enacted in 1978 and points to FERC’s original policy views around implementing
16 PURPA in its 1980 rulemaking order, Order No. 69, but does not address the recent
17 ongoing discussion about modernizing PURPA before FERC. This is likely
18 because the recent national conversation—similar to Act 62’s directive for the
19 Commission to focus on reducing the risk placed on the using and consuming
20 public—has recognized that offering longer-term and higher fixed priced contracts
21 under PURPA imposes significant risks on utility customers.

1 **Q. HAVE THERE BEEN ANY SIGNIFICANT DEVELOPMENTS SINCE YOU**
2 **FILED DIRECT TESTIMONY REGARDING FEDERAL**
3 **IMPLEMENTATION OF PURPA OF WHICH THE COMMISSION**
4 **SHOULD BE AWARE?**

5 A. Yes. As I explained in my Direct Testimony, Congress designed PURPA to require
6 FERC to establish regulations to implement PURPA, while state regulatory
7 authorities, such as this Commission, are ultimately responsible for state-by-state
8 PURPA implementation in a manner consistent with FERC's regulations. On
9 September 19, 2019, FERC issued a significant NOPR to revisit and modernize its
10 original regulations implementing PURPA, which were adopted almost 40 years
11 ago in Order No. 69. In introducing the purpose of the NOPR, FERC explains that
12 its proposed rule revisions are intended to "rebalance the benefits and obligations
13 of the Commission's PURPA Regulations in light of the changes in circumstances
14 since the PURPA Regulations were promulgated in 1980."²

15 To support the need for its proposed rulemaking, FERC specifically
16 highlights changes in the utility industry over the past 40 years, including the
17 opening of wholesale power markets and the now-mandated open-access to the bulk
18 transmission system for independent generators. FERC also notes other changes
19 including the now "plentiful supplies of relatively inexpensive natural gas" as well
20 as the recent maturation of solar, wind and other renewable energy generation

² PURPA NOPR at ¶4.

1 technologies that are now increasingly cost competitive with traditional fossil
2 generation and no longer rely upon PURPA to facilitate their development.³

3 **Q. PLEASE DESCRIBE WHY THE PURPA NOPR IS IMPORTANT TO THIS**
4 **PROCEEDING.**

5 A. While the PURPA NOPR is only a set of proposed rules at this point and is subject
6 to review and comment by interested parties, it is important to recognize that these
7 proposed amendments to FERC's PURPA regulations reflect FERC's most current
8 thinking on how PURPA should be implemented at the State level to ensure QFs
9 are treated fairly and utility consumers are not burdened by avoided cost rates that
10 exceed the actual value of energy and capacity being delivered by QFs. FERC also
11 provides significant findings and conclusions regarding the QF's ability to finance
12 project development that FERC derived from evaluating information received in
13 the 2016 technical conference conducted by FERC in Docket No. AD16-16-000.
14 In the NOPR, FERC proposes a number of revisions to its regulations that, if
15 adopted as proposed, would give this Commission greater flexibility in setting
16 avoided cost rates for QFs in a manner that provides greater protection to
17 customers.

18 **Q. PLEASE DESCRIBE SOME OF THE NOTABLE REFORMS PROPOSED**
19 **BY FERC.**

20 Most notably, FERC has proposed to "allow states to exercise their discretion to set
21 the energy component of the rate a purchasing electric utility pays for a QF's power

³ PURPA NOPR at ¶¶ 3, 19-25.

1 based on market prices rather than on the purchasing electric utility's
2 administratively-determined avoided cost rate.”⁴ This is a potentially significant
3 change to the fixing of avoided cost rates that would better allow the price of energy
4 paid to QFs to track the value to the utility and customers at the time the energy is
5 produced and will mitigate the future overpayment risk of PURPA contracts for
6 customers that exist in longer-term contracts today.

7 FERC is also proposing to amend its regulations to make clear that States
8 have the flexibility under PURPA to require that energy and/or capacity rates be
9 determined through a competitive solicitation process, such as an RFP, versus
10 through administrative determinations as is often undertaken today.⁵ FERC
11 highlights NARUC's recent advocacy for this approach and specifically highlights
12 the state level regulations supporting the Companies' CPRE Program in the
13 Carolinas, the Georgia Renewable Energy Development Initiative (“REDI”)
14 Program (discussed below) as well as a Colorado solicitation as examples of recent
15 competitive solicitations to procure new QF capacity.⁶

16 Finally, while not specifically related to the calculation of avoided cost
17 rates, FERC is also proposing to amend its regulations to provide more clarity on
18 the standard for establishing a legally enforceable obligation (“LEO”) in order for
19 a QF to obligate the utility and customers to purchase the QFs energy and capacity
20 over a specified future term. While Duke Witness David Johnson will speak more

⁴ PURPA NOPR at ¶¶ 32, 63-81.

⁵ *Id.* at ¶ 33; 82-88.

⁶ *Id.* at ¶¶ 33; 83, 85, Fn. 132.

1 to FERC's guidance on the requirements to establish a binding LEO, I would note
 2 that the FERC's has expressed a clear expectation that a QF be required to
 3 "demonstrate its commercial viability and financial commitment to construct its
 4 facility through objective and reasonable state-determined criteria before being
 5 entitled to a LEO."⁷

6 **Q. SHOULD THE COMMISSION TAKE ANY SPECIFIC ACTIONS IN THIS**
 7 **PROCEEDING IN LIGHT OF THE PURPA NOPR?**

8 A. While the proposed regulations are not yet effective, and therefore the Commission
 9 is not required to comply with the new rules set forth in the NOPR, the findings and
 10 conclusions serving as the basis for the proposed rules should be instructive to the
 11 Commission in this case. For example, FERC reverses its previous position from
 12 Order No. 69 that "overestimations" and "underestimations" of future avoided
 13 energy costs would "balance out" over time, now finding that such premise has not
 14 proven accurate and long-term fixed rate contracts have resulted in increased costs
 15 for consumers.⁸ FERC also found that record evidence supports recent
 16 "development of independently-owned generation resources suggest that it is not
 17 necessary for energy rates to be fixed in order to obtain financing."⁹ It is
 18 challenging to reconcile those findings with arguments by the Solar Developer
 19 Advocates that contract terms fixing future avoided energy pricing for terms longer

⁷ PURPA NOPR at ¶¶ 136, 140-142.

⁸ *Id.* at ¶¶ 30.

⁹ *Id.* at ¶¶ 30, 69-78.

1 than 10 years, without adjustment to reflect changing market conditions, align with
2 the PURPA's purpose and intent.

3 **III. THE PURPOSE OF ACT 62**

4 **Q. PLEASE RESPOND TO SBA WITNESS DAVIS' TESTIMONY THAT ACT**
5 **62 DIRECTS THE COMMISSION TO SHIFT AWAY FROM A "BUSINESS**
6 **AS USUAL REGULATORY APPROACH"¹⁰ IN REVIEWING THE**
7 **COMPANIES' AVOIDED COSTS.**

8 **A.** I do not disagree with Mr. Davis that Act 62 creates a number of new procedural
9 requirements for the Commission in terms of the implementation and
10 administration of PURPA in South Carolina. For example, the Commission must
11 now at least biennially hold an evidentiary proceeding to review and update the
12 Companies' avoided costs, and Act 62 also requires the Commission to retain an
13 independent third-party consultant to review the utility's calculations of avoided
14 cost and help inform the Commission's consideration of the utility's future costs to
15 be avoided by purchasing power from QFs. However, it is important to note that
16 Act 62 did not confer new authority to the Commission in Section 58-40-20(A);
17 Congress granted this Commission the exclusive authority over electric utilities'
18 avoided cost rates and all matters implementing PURPA almost 40 years ago.
19 Equally important to understand is that Act 62 does not attempt to modify the
20 foundational requirements of PURPA and the express limitations set by Congress
21 (which, notably, the South Carolina General Assembly also included in Act 62) that

¹⁰ SBA Davis Direct, at 5-6.

1 avoided costs shall not exceed “the incremental costs to an electric utility of electric
 2 energy or capacity or both which, but for the purchase from the qualifying facility
 3 or qualifying facilities, such utility would generate itself or purchase from another
 4 source.”¹¹ Thus, to the extent that SBA Witness Davis and Burgess are advocating
 5 for the Commission to adopt higher avoided cost rates that exceed the future costs
 6 that would be avoided “but for” the Companies’ purchases from QF, this result
 7 would be inappropriate and inconsistent with both PURPA and Act 62.

8 **Q. BOTH SBA WITNESS DAVIS AND JDA WITNESS CHILTON ALSO**
 9 **MAKE STATEMENTS EMPHASIZING THAT THE GENERAL**
 10 **ASSEMBLY’S INTENDED PURPOSE IN ENACTING ACT 62 WAS TO**
 11 **PROMOTE THE DEVELOPMENT OF RENEWABLE ENERGY IN THE**
 12 **STATE.¹² HOW DO YOU RESPOND?**

13 A. I agree that Act 62 is designed, in part, to promote the development of renewable
 14 energy. Duke Energy is fully committed to supporting all of Act 62 and the portions
 15 that promote the development of additional renewable energy. As I highlighted in
 16 my Direct Testimony, Duke Energy has put forward a Green Source Advantage
 17 Voluntary Renewable Energy Program in compliance with the Act to enable our
 18 large commercial and industrial customers to directly procure up to 150 MW of
 19 new solar energy and other renewable energy resources to be built in the State.
 20 Duke Energy Carolinas has also reopened its net metering tariff to its customers in
 21 accordance with Act 62. However, in considering this specific proceeding, which

¹¹ S.C. Code Ann. § 58-41-10(2).

¹² SBA Davis Direct, at 6; SBA Downey Direct, at 3.

1 is conducted pursuant to PURPA, I believe the indifference principle of PURPA
2 restricts the Commission from promoting the development of one resource over
3 another. Additionally, as I explained in my Direct Testimony, Congress was clear
4 that PURPA was not intended to require the ratepayers of a utility to subsidize
5 QFs.¹³

6 The General Assembly, in fact, expressly restated in the Act that the
7 Commission should follow the foundational purpose and requirements of PURPA
8 that the Commission's decisions in this proceeding must be "just and reasonable to
9 the ratepayers" and to keep customers indifferent between the costs of purchasing
10 power from small power producers as opposed to the future utility-owned
11 generation that would be avoided by QF purchases. The General Assembly was
12 clear that the Commission should adhere to PURPA's requirements by ensuring
13 that "rates for the purchase of energy and capacity fully and accurately reflect the
14 electrical utility's avoided costs"¹⁴ but should not exceed the future costs that the
15 QF will actually enable the utility to avoid. The Commission should not interpret
16 the General Assembly's policy direction in Act 62 to address renewable energy
17 issues "in a fair and balanced manner, considering the cost and benefits to all
18 customers" as promoting the Commission to subsidize the solar industry through
19 unjustly high avoided cost rates that are not support by the Companies' actual costs
20 of capacity and energy to be avoided.

¹³ Duke Brown Direct, at 11.

¹⁴ S.C. Code Ann. § 58-41-20(A).

1 Efforts by renewable energy advocates and QF developers to use the
 2 PURPA avoided cost framework to encourage the development of renewable
 3 energy are not novel to South Carolina and have arisen previously in other States
 4 in the 40 years since PURPA was adopted. For example, in the mid-1990s, FERC
 5 rejected the California Public Utilities Commission's efforts to encourage
 6 renewable energy development in that State by directing the California utilities to
 7 purchase future unneeded capacity from QFs at rates above the utilities' avoided
 8 costs.¹⁵ FERC explained:

9 With PURPA, Congress was seeking to diversify the
 10 Nation's generation fuel mix and promote more efficient use
 11 of fossil fuels when they were used for generation by
 12 encouraging renewable technologies and cogeneration, in
 13 order to cushion against further price shock and reduce
 14 dependence on fossil fuels. In promoting greater fuel
 15 diversity, however, ***Congress was not asking utilities and***
 16 ***utility ratepayers to pay more than they otherwise would***
 17 ***have paid for power. . . .*** PURPA requires an electric utility
 18 to purchase power from a QF, but only if the QF sells at a
 19 price no higher than the cost the utility would have incurred
 20 for the power if it had not purchased the QF's energy and/or
 21 capacity, i.e. would have generated itself or purchased from
 22 another source. ***The intention was to make ratepayers***
 23 ***indifferent as to whether the utility used more traditional***
 24 ***sources of power or the newly-encouraged alternatives.***¹⁶

25 The FERC went on to explain that:

26 “states have numerous ways outside of PURPA to encourage
 27 renewable resources. As a general matter, states have broad
 28 powers under state law to direct the planning and resource
 29 decisions of utilities under their jurisdiction. States may, for
 30 example, order utilities to build renewable generators
 31 themselves, or deny certification of other types of facilities
 32 if state law so permits. They also, assuming state law

¹⁵ *S. Cal. Edison Co.*, 71 FERC ¶ 61269, 62079–80 (1995) (emphasis added).

¹⁶ *Id.*

1 permits, may order utilities to purchase renewable
2 generation.”¹⁷

3 **Q. DO YOU AGREE WITH THE SOLAR DEVELOPER ADVOCATES THAT**
4 **ACT 62 IMPLEMENTS PURPA IN A MANNER THAT IS INTENDED TO**
5 **INCREASE COMPETITION FROM SMALL POWER PRODUCERS?**

6 A. No. I do not agree that the PURPA implementation sections of Act 62 are intended
7 to, or even could, create competition from small power producers. The notion that
8 PURPA or Act 62 enables “competition” between QF resources and any other
9 generation resource – whether owned by the utility or owned by a third party – is
10 an untrue and misleading theme used by the Solar Developer Advocates in an
11 apparent attempt to distract from the actual issues to be considered in calculating
12 the utility’s avoided cost under PURPA. As I explain herein and later in my
13 testimony, QFs selling their output to the utility under administratively-established
14 avoided cost rates are provided a guarantee that the utility will purchase their
15 output. At no point does a QF need to “compete” with any other generation
16 resource to ensure its output is purchased.

17 Witness Downey’s assertion that “Proper implementation of Act 62 and
18 PURPA in South Carolina means businesses like Southern Current have the
19 opportunity to compete and that customers receive the benefits of that
20 competition”¹⁸ demonstrates a gross misunderstanding of the difference between
21 QF generation selling to the utility under PURPA’s “mandatory purchase

¹⁷ *Id.*

¹⁸ SBA Downey Direct, at 11.

1 obligation” and non-QF generation resources that actually compete against one
2 another for the right to sell their capacity and energy to the utility. Additionally,
3 Mr. Downey’s assertion fails to recognize that the PURPA avoided cost framework
4 is not designed to “benefit” customers but instead to leave them financially
5 unaffected by the purchase of the QF power. Under PURPA, customers are, in
6 theory, no better or worse off as a result of the utility purchasing QF power at the
7 avoided cost rate versus the utility generating the power or purchasing it from
8 another source. This is the indifference principle I discussed above. Because
9 customers are no better or worse off, they cannot possibly benefit from the QF solar.
10 Contrary to Mr. Downey’s framing of fixed administratively-determined avoided
11 costs as “promoting competition,” such rates established under PURPA have
12 nothing to do with a competitive market-driven process.

13 **Q. DO YOU AGREE WITH MR. DOWNEY THAT QF PURCHASES**
14 **PURSUANT TO PURPA REPRESENT A MARKET-BASED**
15 **OPPORTUNITY TO DELIVER BENEFITS TO RATEPAYERS?**

16 A. No. Solar QFs selling power under administratively-determined PURPA rates do
17 not represent a “market based opportunity to deliver benefits to ratepayers.”¹⁹

¹⁹ SBA Downey Direct, at 11.

1 **Q. PLEASE EXPLAIN WHY PURCHASES OF QF POWER UNDER PURPA**
2 **DOES NOT CREATE A MARKET-BASED OPPORTUNITY TO DELIVER**
3 **BENEFITS AS ALLEGED BY MR. DOWNEY.**

4 A. First, it is important to recognize that in a competitive market, buyers and sellers
5 negotiate a price for a specified quantity of the good or service based upon supply
6 and demand. Competitive markets do not require that there are always multiple
7 buyers and sellers but can include situations where there is one buyer (like a utility
8 for power contracts) or one seller (like the U.S. Treasury for Treasury Bonds.)
9 Under PURPA's "mandatory purchase obligation," the buyer (utility) must
10 purchase all the solar generation that can be developed at administratively-
11 determined avoided cost rates set by the Commission (unlike a competitive market).
12 Further, unlike a competitive market, a utility cannot change the purchase price it
13 is willing to pay based upon how much supply is offered at that price and does not
14 have the flexibility to limit the quantity of capacity or energy to be purchased. The
15 most important distinction is that the sellers (small power producers) do not have
16 to compete on price or commercial terms as those rates and terms are
17 administratively set by the Commission based upon the utility's projection of future
18 avoided costs. In addition, under PURPA the utility does not have the option of
19 curtailing solar output, or purchasing less solar, when other generators or the spot
20 power market is less expensive than the QF contract. Regardless of how the QF
21 contract compares in price to other available generation, the utility must purchase
22 all of the output at any given time. Therefore, the PURPA contract is insulated from
23 any market based competition. The characteristics of what Witness Downey

describes as a PURPA solar “market” have almost nothing in common with competitive markets.

Q. IS DUKE ALSO PURSUING A COMPETITIVE SOLICITATION PROCESS FOR NEW RENEWABLE ENERGY RESOURCES THAT WILL DELIVER THE BENEFITS TO RATEPAYERS THAT MR. DOWNEY HIGHLIGHTS OF COMPETITIVELY-OFFERED RENEWABLE ENERGY AT RATES BELOW AVOIDED COSTS?

A. Yes, as I mentioned in my Direct Testimony, the Companies are competitively soliciting significant new renewable energy capacity across both South Carolina and North Carolina through the independently-administered CPRE Program, enacted in 2017 by N.C. House Bill 589.²⁰ The CPRE Program is a competitive process designed to procure the most cost-effective utility-scale renewable energy resources across the DEC and DEP systems (whether located in North Carolina or South Carolina) at prices below the Companies’ avoided costs. The Companies recently completed the “Tranche 1” CPRE RFP, and procured approximately 550 MW of new solar capacity for 20-year fixed price contract terms at a projected savings relative to avoided cost of approximately **\$261 million** over the 20-year term of PPA.²¹

The Companies are also finalizing the upcoming “Tranche 2” RFP, which is currently proposed to open on October 15, 2019, and will solicit a total of 680

²⁰ See N.C. Session Law 2017-192, Part II, enacting N.C. Gen. Stat. § 62-110.8 (“N.C. House Bill 589”).

²¹ See *Duke Energy Carolinas LLC’s and Duke Energy Progress LLC’s Update to Commission on Competitive Procurement of Renewable Energy Tranche 1 Request for Proposal and Plans for Tranche 2*,

1 MW of new renewable energy resources to be constructed between now and 2023.
2 Additional competitive solicitations seeking an estimated 650 MW of new
3 renewable energy resources are also planned over the next few years under the
4 CPRE Program.

5 **Q. HOW DOES DUKE'S PLAN TO SOLICIT OVER 1,300 MW OF NEW**
6 **RENEWABLE ENERGY CAPACITY UNDER THE CPRE PROGRAM AT**
7 **COMPETITIVELY DETERMINED PRICES BELOW AVOIDED COSTS**
8 **AFFECT THE CURRENT PROCEEDING?**

9 A. It does not directly impact the Commission's review of the Companies' filed
10 avoided costs under Act 62. The Companies have accurately and appropriately
11 calculated their future avoided costs using the peaker methodology and have
12 complied with the requirements of Act 62 to ensure that small power producers
13 have the opportunity offered under PUPRA to sell and deliver their power at the
14 Companies' fixed avoided cost rates over a 10-year term. However, the success of
15 the CPRE Program in delivering new solar resources at prices below avoided costs
16 does call into question the Solar Developer Advocates' testimony promoting higher
17 avoided cost rates on grounds that solar QFs create benefits for customers in terms
18 of competition and lower prices.

at Section I. Executive Summary, Figure 1, Docket No. 2018-202-E (filed June 26, 2019) ("Duke CPRE Update to Commission").

1 **Q. DOES DUKE AGREE WITH WITNESS DAVIS THAT SMALL POWER**
2 **PRODUCERS “COMPETE” WITH UTILITY OWNED GENERATION?**

3 A. No. As I described earlier, because PURPA mandates the utility to purchase the
4 QF’s output, no competition can exist between utility-owned generation and QF
5 generation. Moreover, in general, when Duke determines a need for additional
6 larger generation needs, it solicits bids for such resources from the market and
7 compares those costs with the cost to customers of new Duke Energy generation.
8 Both resources must be able to meet the needs of customers and Duke chooses the
9 least cost option based upon the facts at the time. However, this market-driven
10 procurement is a stark contrast from PURPA and Act 62’s administratively-
11 established long-term contracts at issue in this proceeding. Mr. Davis ignores the
12 basic premise that PURPA’s must take obligation ensures the QF does not have to
13 compete with the utility’s generation or with any other QF to receive a PURPA
14 contract.

15 **Q. IS DUKE SOMEHOW SEEKING TO SHIELD ITSELF FROM**
16 **COMPETITION FROM SOLAR QFS IN THIS PROCEEDING?**

17 A. No. Duke unequivocally rejects SBA Witness Davis’ unfounded assertion that
18 “[b]y keeping avoided cost rates artificially low and assigning unreasonable costs
19 to small power producers, utilities can effectively shield themselves from
20 competition to the benefit of shareholders and at the expense of ratepayers.”²² To
21 the contrary, administratively determined avoided costs effectively shield QFs

²² SBA Davis Direct, at 17.

1 from having to compete with each other to deliver power at the least cost. As I
2 explain above, Duke is implementing a competitive solicitation framework in the
3 form of the CPRE Program that allows Southern Current and SBA's members to
4 compete *with Duke and each other* to deliver the least cost solar power to
5 customers. SBA's fictional narrative that Duke is seeking to shield itself from
6 competition from independent solar generators is false and should be wholly
7 rejected.

8 Again, PURPA's avoided cost framework neither promotes competition nor
9 benefits ratepayers by delivering energy and capacity at the lowest possible cost. It
10 is intended to simply make customers indifferent between purchasing QF power
11 and utility-generated power. In contrast, the CPRE Program does accomplish these
12 goals, and the Companies are committed to continuing to competitively procure the
13 most cost effective new solar energy resources—including from solar QFs in South
14 Carolina that elect to compete—for our customers.

1 **Q. ARE YOU AWARE WHETHER THE SAME SOLAR DEVELOPER**
 2 **ADVOCATES GENERALLY RECOMMENDING THE COMMISSION**
 3 **“PROMOTE COMPETITION” BY ADOPTING HIGHER AVOIDED COST**
 4 **RATES AND LONGER FIXED TERM PPAs IN THIS PROCEEDING**
 5 **HAVE BEEN ABLE TO SUCCESSFULLY COMPETE TO DELIVER**
 6 **PROJECTS AT FIXED PPA RATES BELOW THE COMPANIES’ LONG**
 7 **TERM AVOIDED COSTS UNDER THE CPRE PROGRAM?**

8 **A.** Yes. According to the CPRE Program Independent Administrator’s Final Report
 9 announcing the Tranche 1 RFP results, as filed with this Commission on June 26,
 10 2019, in Docket No. 2018-202-E²³, a 50 MW_{AC} solar QF bid into the RFP by a
 11 Southern Current-affiliated entity and a 20 MW_{AC} solar QF bid into the RFP by a
 12 JDA-affiliated entity were each selected as winning bidders in Tranche 1. These
 13 projects have now executed 20-year PPAs with DEC, at rates well below Duke’s
 14 avoided costs.

²³ See *Duke CPRE Update to Commission*, *supra* note 19 at Exhibit 2, Final Report of the Independent Administrator re: Request for Proposals for the Competitive Procurement of Renewable Energy Program Tranche 1, at Attachment 1.

1 **Q. JDA WITNESS CHILTON ADVOCATES THAT ACT 62 SUPPORTS THE**
 2 **COMMISSION REQUIRING THE COMPANIES TO OFFER FIXED**
 3 **AVOIDED COST RATES FOR TERMS OF 15 YEARS OR LONGER**
 4 **UNDER PURPA.²⁴ HOW DO YOU RESPOND?**

5 A. The Companies do not support offering longer term fixed price PPAs in excess of
 6 10 years unless the price is determined pursuant to a competitive procurement
 7 framework. Offering administratively-determined forecasted longer term fixed-
 8 price PPAs is not mandated by Act 62 and is not in the best interest of customers
 9 unless obtained through a competitive solicitation process like CPRE.

10 Act 62 directs the Companies to initially offer to enter into fixed price PPAs
 11 with small power producers with active interconnection requests on file with the
 12 Companies to purchase their energy and capacity for a duration of 10 years and
 13 only up to 20 percent of the aggregate nameplate capacity of each utility's previous
 14 five-year average South Carolina retail peak demand.²⁵ Act 62 further provides
 15 that the Commission may also direct the Companies to enter into fixed price PPAs
 16 for terms longer than ten years, "which must contain additional terms, conditions,
 17 and/or rate structures as proposed by intervening parties and approved by the
 18 commission, including but not limited to, a reduction in the contract price relative
 19 to the ten year avoided cost."²⁶

²⁴ JDA Chilton Direct, at 10.

²⁵ S.C. Code Ann. § 58-41-20(F)(1)-(F)(2).

²⁶ S.C. Code Ann. § 58-41-20(F)(2).

1 Up to the initial 20 percent of South Carolina retail peak threshold
2 prescribed by Act 62, Duke is complying with Act 62's requirements by offering
3 10-year fixed price PPA terms and the Companies do not support offering
4 administratively-determined avoided cost rates longer than 10 years. As I describe
5 in my Direct Testimony, the Companies customers are currently responsible for a
6 forecasted over-payment of approximately \$2.26 billion, as compared to the
7 Companies' current avoided cost rates, as a result of solar QF development in North
8 Carolina since 2012. Based on this experience, the Companies believe that offering
9 administratively determined fixed price contracts any longer than necessary to
10 comply with Act 62 significantly increases the overpayment risk for customers and,
11 therefore, would be inconsistent with Act 62's directives that the Commission's
12 PURPA implementation decisions should reduce the risk on the using and
13 consuming public obligated to pay for QF purchases.²⁷ Moreover, JDA Witness
14 Chilton does not propose any "appropriate statutory conditions,"²⁸ as she terms it,
15 that would result in these longer-term fixed price contracts mitigating the
16 overpayment risk to customers. I further address the overpayment risk of fixing
17 long-term energy payments in light of FERC's recent PURPA NOPR later in my
18 testimony.

²⁷ S.C. Code Ann. § 58-41-20(A); (B)(1).

²⁸ JDA Chilton Direct, at 10.

1 **Q. JDA WITNESS CHILTON ALSO TESTIFIES THAT DUKE IS BEING**
2 **“DISINGENUOUS ABOUT THE RISKS TO RATEPAYERS FROM**
3 **LONGER TERM PPAS” BECAUSE DUKE AND ITS UNREGULATED**
4 **AFFILIATES HAVE ACTIVELY PARTICIPATED IN THE CPRE**
5 **PROGRAM AS WELL AS GEORGIA POWER COMPANY’S SIMILAR**
6 **RENEWABLE ENERGY DEVELOPMENT INITIATIVE PROGRAM,**
7 **WHICH OFFER 20-YEAR AND 35-YEAR PPA TERMS, RESPECTIVELY.**
8 **HOW DO YOU RESPOND?**

9 **A.** I disagree with Ms. Chilton. North Carolina’s adoption of the CPRE Program in
10 2017 and the Georgia Public Service Commission’s oversight of Georgia Power
11 Company’s independently-administered REDI RFP Program actually validate the
12 Companies’ perspective that there is a less risky and more cost-effective way to
13 procure new solar capacity for customers. These independently-administered
14 competitive solicitation processes approved in North Carolina and Georgia ensure
15 that only the most cost-effective projects are selected, thereby reducing the risk of
16 overpayment and providing ratepayer protection. In addition, as Duke Witness
17 Holeman explains, customers also benefit from solar assets procured under the
18 CPRE Program, which mandates enhanced operational control and dispatch
19 rights—like Duke’s own solar facilities—that allow the Companies to more
20 effectively and reliably integrate solar energy into the grid. The fact that the
21 Companies and Duke’s unregulated affiliates’ solar project proposals were selected
22 through these RFPs simply means that Duke’s project proposals and the other

1 winning bidders delivered the most value for customers at the lowest cost, as
2 determined by the independent administrator of the CPRE Program.

3 **Q. HAVE ANY OF THE SOLAR DEVELOPER ADVOCATE WITNESSES**
4 **POINTED TO OTHER STATES IN THE SOUTHEAST AS SUPPORTING**
5 **FIXED PURPA PPA AVOIDED COST RATES FOR TERMS LONGER**
6 **THAN 10 YEARS?**

7 A. No. Notably neither Ms. Chilton nor the other Solar Developer Advocate
8 Witnesses testifying on behalf of SBA identify any other States in the Southeast
9 that are offering administratively-determined fixed avoided cost rates for terms 10
10 years or longer under PURPA. This is because the Companies' proposed fixed 10-
11 year fixed avoided cost rates under Act 62 will be the longest fixed rates offered
12 under PURPA in the Southeast for projects larger than one MW. In North Carolina,
13 outside of a competitive solicitation, the rates and terms offered to small power
14 producers QFs above one MW are limited to maximum term of five-years.²⁹
15 Notably, over the past 12 months, 9 solar QFs, totaling approximately 472 MW of
16 new QF solar capacity have signed fixed five-year contracts with DEC and DEP in
17 North Carolina. In Georgia, outside of the REDI Program, it is my understanding
18 that Georgia's PURPA regime uses a short-term hourly avoided energy rate
19 calculated by the utility, updated monthly, and offers a short-term proxy forecasted
20 avoided capacity rate, updated annually, based upon the utility's integrated resource
21 planning forecasted capacity needs. Alabama and Mississippi have also recently

²⁹ See N.C. Gen. Stat. § 62-156(c).

1 approved forecasted energy and capacity rates fixed only for a one-year term with
 2 an evergreen provision allowing the QF to sell power in future years at updated
 3 avoided cost rates. Tennessee also has a one-year minimum one-year term. All of
 4 these States have mitigated the concern about stale, above-market avoided cost
 5 rates under PURPA by ensuring frequent repricing to reflect current market
 6 conditions.

7 Simply put, the ten-year fixed PPA term to be offered to existing QFs under
 8 the requirements of Act 62 is a significant outlier compared to other surrounding
 9 states in the Southeast.

10 **IV. STRIVING TO REDUCE PURPA RISKS FOR CUSTOMERS UNDER ACT 62**

11 **Q. PLEASE REINTRODUCE DUKE'S PERSPECTIVE ON HOW THE**
 12 **COMMISSION SHOULD ASSESS THE RISKS TO THE USING AND**
 13 **CONSUMING PUBLIC UNDER ACT 62 IN THIS PROCEEDING?**

14 A. As I explain in my initial testimony, in addition to specifically mandating that the
 15 Commission must follow the requirements of PURPA and FERC's implementing
 16 regulations, Act 62 also establishes an additional requirement that the
 17 Commission's decisions in adjudicating this PURPA proceeding must "strive to
 18 reduce the risk placed on the using and consuming public."³⁰ I explained that this
 19 consideration is important because once the Commission sets the regulatory
 20 framework and price signals that QF developers will respond to over the next few
 21 years, the Commission has little control over the amount of new QF power that will

³⁰ Duke Brown Direct, at 11, *citing* S.C. Code Ann. § 58-41-20(A).

1 be developed in response to these price signals, and ultimately the cost that
2 customers will bear to pay for that new QF power. And once either DEC or DEP
3 enters into a PPA with a QF, neither the Companies nor the Commission may
4 modify the QF's contract if changes in the Companies' avoided costs occur in the
5 future.

6 As I explain in my Direct Testimony, as a result of unparalleled QF growth
7 in North Carolina since 2012 and the almost 4,000 MW of solar QF power that have
8 executed PPAs with the Companies under PURPA's mandatory purchase
9 obligation in both States, Duke's current estimated PURPA financial obligation
10 across North Carolina and South Carolina is approximately \$4.66 billion over the
11 next 15 years, with a currently forecasted over-payment of approximately \$2.26
12 billion, as compared to the Companies' current avoided cost rates.

13 In sum, Duke's perspective based upon the clear language used by the
14 General Assembly in enacting S.C. Code Ann. § 58-41-20(A) is that "reduc[ing]
15 the risk placed on the using and consuming public" is a specific consideration that
16 the Commission should carefully evaluate in this proceeding. Commission
17 approval of avoided cost rates that most accurately forecast the costs DEC and DEP
18 will actually avoid at the time the QF energy is produced is by purchasing power
19 from QFs is of major importance to reducing the risks of PURPA implementation
20 for customers in this proceeding.³¹

³¹ Duke Brown Direct, at 16-17.

1 **Q. SBA WITNESS DAVIS ARGUES THAT THE COMPANIES’ CONCERNS**
2 **OF FUTURE OVER-PAYMENT RISK BASED UPON THE CURRENT**
3 **\$2.26 BILLION IN PROJECTED PAYMENTS IN EXCESS OF CURRENT**
4 **AVOIDED COSTS UNDER EXISTING QF CONTRACTS IS**
5 **“OVERBLOWN AND UNFAIR.”³² HOW DO YOU RESPOND?**

6 A. Mr. Davis’ argument is incorrect. The overpayment mentioned in my testimony is
7 fairly calculated and real. This \$2.26 billion overpayment stems primarily from
8 North Carolina’s implementation of PURPA since 2012 that resulted in high-
9 priced, long-term, fixed-price avoided cost contracts. The \$2.26 billion calculation
10 is fair because it only considers the remaining life of the existing contracts and uses
11 the Companies’ currently filed avoided cost rates to show the projected over-
12 payment impact on customers. Mr. Davis argues that gas prices must eventually
13 rise, which would level out the overpayment obligation; however, Duke takes the
14 current 10-year forward natural gas market prices into account in calculating this
15 projected overpayment. The current market price is a reflection of all the buyers
16 and sellers of natural gas and their expectations regarding future prices over the
17 next 10 years. Perhaps Mr. Davis’ predictions about the natural gas market could
18 turn out to be true, but the Companies believe it is more appropriate to use the actual
19 natural gas market prices in this calculation, than Mr. Davis’ personal prediction.
20 In fact, customers have already paid \$185 million more under existing PURPA
21 contracts than they would have if Duke had purchased or generated the same

³² SBA Davis Direct, at 8.

1 amount of power at prices in effect at the time the PURPA power was delivered
2 over the period 2016-2018. The Companies' concern about overpayment risk for
3 customers is neither unfairly presented nor overblown.

4 **Q. SBA WITNESS DAVIS ALSO ARGUES THAT PURPA ASSUMES**
5 **FUTURE CHANGES IN AVOIDED COST RATES WILL “BALANCE**
6 **OUT” LEAVING RATEPAYERS “UNHARMED.”³³ DO YOU AGREE?**

7 A. No. As I mention above, Duke's recent experience with long term fixed avoided
8 cost rates has resulted in significant over-payments at long-term fixed price
9 contracts significantly in excess of DEC's and DEP's current cost of energy—
10 largely due to stale and inaccurate forecasts and assumptions about the price of
11 natural gas. Additionally, in its recent PURPA NOPR, FERC rejected the
12 presumption that overestimations and underestimations of avoided cost rates will
13 “balance out” over time, which was originally set forth in PURPA's 1980
14 rulemaking Order No. 69.³⁴ Similar to FERC's current view, Duke's recent
15 experience is that longer-term fixed avoided cost rates are more likely to exceed the
16 utility's actual marginal costs at the time of delivery over the contract period than
17 they are to be below marginal costs at the time of delivery. When customers are
18 burdened with above-market avoided cost rates that exceed the actual marginal
19 value of power at the time of delivery, I would argue that customers are certainly
20 not left “unharmd” as suggested by Mr. Davis.

³³ SBA Davis Direct, at 9.

³⁴ PURPA NOPR at ¶ 36.

1 **Q. ARE EITHER THE V.C. SUMMER OR THE LEE NUCLEAR PROJECTS**
2 **RELEVANT TO THE ESTABLISHMENT OF THE COMPANIES'**
3 **AVOIDED COST OR THIS COMMISSION'S IMPLEMENTATION OF**
4 **ACT 62 OR PURPA?**

5 A. No. Solar Developer Advocates discuss these nuclear projects in the context of the
6 relative risks of fixed price long term QF contracts versus utility constructed and
7 owned resources, with the implication being that fixed price long term QF contracts
8 are less risky for a utility's customers than the utility's own resources. The
9 comparative risks of these two types of resources have no bearing on the calculation
10 of DEP's and DEC's avoided costs. Under PURPA, utilities have an obligation to
11 purchase QF solar at the utility's avoided cost, irrespective of whether such
12 purchases put more or less risk on their customers than utility-owned generation.
13 Accordingly, the comparison of risk profiles is entirely inapplicable to this
14 proceeding.

15 **Q. NOTWITHSTANDING SUCH IRRELEVANCE, PLEASE RESPOND TO**
16 **THE TESTIMONY OF THE SOLAR DEVELOPER ADVOCATES**
17 **ALLEGING THAT QF CONTRACTS ARE LESS RISKY THAN UTILITY**
18 **OWNED GENERATION?**

19 A. While utility-owned generation can expose customers to risk if the final
20 construction costs exceed the initial estimates, customers are responsible for such
21 costs only to the extent the Commission deems it appropriate for the utility to
22 recover such costs. Many safeguards are in place through utility regulation that
23 mitigate this risk to customers.

1 When a utility builds a generation asset, it is subject to significant regulatory
2 oversight that begins even before the asset is built and continues throughout the
3 construction, operation, and useful life of the asset. Prior to construction, this
4 regulatory oversight includes an extensive certification process and, now under Act
5 62, a South-Carolina specific detailed requirement to compare the utility's
6 proposed facility to other generation options in terms of cost, reliability and other
7 criteria to be determined by this Commission. Once the asset is constructed and
8 then placed into commercial operation, the utility is then subject to cost of service-
9 based ratemaking with oversight and regulation from this Commission to ensure
10 that costs were prudently incurred, and that any benefits or cost savings are passed
11 on to customers. Throughout the life of the plant, the Commission has oversight
12 and regulates such items as the depreciation rates, O&M costs to be collected, any
13 additional investment necessary in the plant, and hears any question arising from
14 unplanned outages, including scrutiny of replacement power costs in fuel cost
15 recovery proceedings. Additionally, throughout the life of the plant, the
16 Commission can adjust the cost of capital being recovered by the utility.

17 This regulatory oversight and cost recovery framework for utility-owned
18 generation is fundamentally different than the PURPA avoided cost framework,
19 and it is important to recognize that the risks and benefits to customers achieved
20 through cost-of-service ratemaking are not directly comparable to the risks and
21 benefits customers face under a PURPA avoided cost framework. In October 2017,
22 the NCUC's most recent Order addressing North Carolina's implementation of
23 PURPA explained:

1 when a utility builds a plant and places it in rate base, it does
2 not receive forecasted avoided cost for energy and capacity
3 like the QFs, but instead earns a return on capital invested to
4 meet its obligation to serve. Further, the addition of new
5 utility-owned generation is driven by integrated resource
6 planning that is scrutinized by the Public Staff and other
7 interested parties before the Commission, and a specific
8 plant addition is subject to review in CPCN proceedings,
9 where the utility must usually demonstrate that the
10 investment can be used to cost-effectively service customer
11 energy and capacity needs. In contrast, a QF has no limit on,
12 and the Commission has no right to review, the amount of
13 debt QFs may use for financing, the return on equity, or the
14 overall rate of return. . . . the longer depreciation lives for
15 utility-owned assets are intended to lower the near-term rate
16 impact for utility projects because lower annual depreciation
17 costs are passed directly to the customers through a lower
18 revenue requirement. In contrast, any such savings from
19 longer PPAs and lower financing costs are retained as profit
20 by the QF developer and its investors and are not flowed
21 through to customers.³⁵

22 These findings, while from a neighboring jurisdiction, apply equally to the
23 arguments being made in this South Carolina PURPA proceeding by Solar
24 Developer Advocates attempting to paint long-term fixed avoided cost contracts as
25 less risky and more favorable to customers than utility-owned generation.
26 Accordingly, Duke submits that this attempted comparison is irrelevant and should
27 be rejected.

³⁵*Order Establishing Standard Rates and Contract Terms for Qualifying Facilities*, at 35, NCUC Docket No. E-100, Sub 148 (Oct. 11, 2017) (“NCUC Sub 148 Order”).

1 **Q. DO QF SOLAR CONTRACTS MITIGATE THE RISKS OF**
2 **CONSTRUCTION COST OVERRUNS DESCRIBED BY THE SOLAR**
3 **DEVELOPER ADVOCATES?**

4 A. No, they do not. In order to mitigate such costs, the QF would have to reduce the
5 need for utility-owned generation. While at first glance it seems that adding
6 generating capacity would offset future generation needs, the Commission must
7 understand when the capacity is needed and when the generation is being provided.
8 For DEC and DEP, the need for additional generation capacity is driven by
9 increases in the utilities' early-morning winter peak. Given that solar does not
10 produce much, if any, energy during the early-morning winter peak, these small
11 power producers contribute very little to the energy needs of customers at that time
12 of day. Additionally, it is important to remember that QF solar generation is not
13 dispatchable and therefore cannot replace baseload and load following utility
14 generation as testified to by Duke Witness Holeman. As a result, as testified to by
15 Duke Witness Snider, standalone solar QF generation cannot offset the need for
16 additional traditional generation.

17 **Q. WHAT OVERSIGHT DOES THE COMMISSION HAVE TO REVIEW THE**
18 **PRUDENCY OF COSTS ASSOCIATED WITH QF PURCHASED POWER**
19 **TO ENSURE CUSTOMERS ARE NOT PAYING TOO MUCH FOR QF**
20 **SOLAR PURCHASED POWER?**

21 A. While the Commission reviews the Companies' fuel costs on an annual basis,
22 including the costs associated with purchased power, the Commission has no
23 authority to terminate a QF contract once it has been executed on the grounds that

1 the costs are no longer prudent. As I explained in my Direct Testimony, in enacting
2 PURPA, Congress generally exempted QFs from most all aspects of State utilities
3 regulation, including oversight of their profits, returns, and business operations.³⁶
4 Once the QF makes a legally enforceable commitment to deliver power under
5 PURPA, the utility and customers are obligated to pay the QF at the fixed avoided
6 cost rates over the full term of the contract regardless of the QF's costs of
7 construction and operation. For example, the PURPA NOPR highlights data from
8 the Energy Information Administration that the overnight capital cost to construct
9 fixed tilt solar photovoltaic generation declined 67 percent between 2013 and
10 2017.³⁷ If a hypothetical QF committed to sell power to DEC or DEP in 2013 but
11 ultimately did not construct their project until 2017, the contract price paid by the
12 utility's customers would not change and the increased return on investment due to
13 this significant decline in costs would go directly to the QF developer and its equity
14 investors, paid for by the utility's customers. By contrast, in rate cases, utilities
15 only recover their actual investment costs and recover their actually incurred
16 expense *if* found reasonable and prudent by the Commission. Moreover, if the
17 utility's cost of capital, commodity expenses, or O&M decline in the future, those
18 changes are also recognized in the rates paid for by customers. In direct contrast,
19 QFs would retain the full benefit of any windfall achieved under the term of their
20 contract – not utility customers. Similarly, if avoided costs decline significantly
21 due to changing market conditions, as has also occurred over the past few years,

³⁶ Duke Brown Direct, at 5.

³⁷ PURPA NOPR at Fn. 28.

(such as the significant decline in natural gas prices since 2010 due to new shale gas production), the QF would retain these higher forecasted avoided rates to the disadvantage of utility customers who would never see the benefit of the avoided cost decline during the term of the contract.

This has manifested itself in a QF contract portfolio that will cost customers over \$2 billion more than current market conditions would warrant. By comparison, in rate cases, utilities only recover their actual investment costs and recover their actually incurred expense *if* found reasonable and prudent by the Commission.

V. ARGUMENTS RELATING TO QF FINANCING

Q. PLEASE RESPOND TO JDA WITNESS CHILTON’S TESTIMONY THAT PURPA “IMPLICITLY REQUIRES” THE COMMISSION TO ASSURE QFs HAVE ACCESS TO “REGULARLY AVAILABLE, MARKET RATE FINANCING FOR THE COSTS OF DEVELOPING, BUILDING AND OPERATING THEIR PROJECTS.”³⁸

A. I disagree. Neither FERC’s regulations, FERC Orders implementing PURPA nor Act 62 prescribes that avoided cost rates and terms offered to QFs must enable their project sponsors to obtain “regularly available market rate financing.”³⁹ Nor does Ms. Chilton clearly indicate whether there are differences in the financing that would be “regularly available” for sophisticated versus unsophisticated QF developers, for smaller QFs versus larger QFs or for solar QFs versus other types

³⁸ JDA Chilton Direct, at 8.

³⁹ *Id.*

1 of QF technologies. My general understanding is that numerous factors including
 2 a QF developer's balance sheet, management team experience and
 3 creditworthiness, as well as available tax incentives, and project- and avoided cost-
 4 specific considerations including price, contract tenor, the cost of capital, and the
 5 risk of the investment, amongst others, all come into play in determining whether
 6 an investment can attract debt and/or equity capital.

7 FERC's only statement regarding QF financing prior to the recent PURPA
 8 NOPR was a declaratory Order⁴⁰ issued in 2016 finding that a legally enforceable
 9 obligation should be "long enough to allow QFs reasonable opportunities to attract
 10 capital from potential investors."⁴¹ The issue before the Commission in that
 11 proceeding was whether Connecticut Public Utility Regulatory Authority's
 12 implementation of PURPA offering QFs only a real-time pricing energy-only rate
 13 option was consistent with QFs' right to commit to deliver power pursuant to a
 14 legally enforceable obligation based upon a forecasted avoided cost rate. In
 15 addressing the specific facts of that case, FERC held that offering only a real-time
 16 energy rate did not comply with FERC's regulation, but also reiterated that its
 17 regulations do not specify any particular number of years for such legally
 18 enforceable obligations, meaning that the term and structure of forecasted avoided
 19 cost rates is left to the discretion of the implementing State Commission.⁴² As I
 20 explained earlier in my testimony, the FERC's recent PURPA NOPR also now

⁴⁰ *Windham Solar, LLC*, 157 FERC ¶ 61,134 (2016) ("Windham Solar Order").

⁴¹ *Id.* at ¶ 8.

⁴² *Id.* at ¶ 8, Fn. 13.

1 clearly suggests that FERC is increasingly supportive of pricing terms within
 2 PURPA contract structures that ensure the price of energy delivered under such
 3 contracts is aligned with market prices at the time of delivery of power, such as a
 4 contract where the energy component of the rate is updated during the contract term
 5 based on market prices at the time energy is delivered. Indeed, FERC states that
 6 “evidence supports the conclusion that a fixed capacity rate and a variable energy
 7 rate should be adequate to support financing for QFs”⁴³ Thus, there is no basis for
 8 the Commission to find that PURPA requires all QFs to be able to obtain regularly
 9 available market rate financing, as suggested by Ms. Chilton, nor is the Commission
 10 required to undertake efforts to determine what avoided cost rates, terms and
 11 conditions would be “financeable” for QFs.

12 **Q. SHOULD THIS COMMISSION SET AVOIDED COST RATES BASED ON**
 13 **WHAT CREATES AN EASILY FINANCED RATE FOR QF**
 14 **DEVELOPERS?**

15 A. No, this would very clearly violate PURPA and Act 62. As I’ve described earlier,
 16 PURPA requires the Commission to set avoided cost rates that most accurately
 17 reflect the utility’s costs to be avoided by purchasing from the QF. The
 18 Commission’s mandate under Act 62 continues to be focused on ensuring that
 19 DEC’s and DEP’s avoided cost rates are just and reasonable to consumers and in
 20 the public interest, not discriminatory against QFs, and do not exceed the cost of
 21 the energy the utility would have incurred through self-generation or otherwise, but

⁴³ PURPA NOPR at ¶ 78.

1 for the purchase from the QF. No portion of this analysis involves assessing
2 whether this rate results in a financeable contract. To inflate the avoided cost rate
3 paid by customers to make financing contracts easier for developers would result
4 in quite an inequity for utility customers.

5 I would also highlight that, unlike the cost-of-service-based rates of electric
6 utilities like DEC and DEP, PURPA largely exempts QFs from state regulatory
7 authority oversight of their profits and business operations so that neither the
8 Companies, the Office of Regulatory Staff, nor the Commission has any clear
9 insight into a QF developer's business or the level of profit deemed "reasonable"
10 to attract equity capital.⁴⁴ In a recent avoided cost proceeding in North Carolina,
11 that State's commission similar commented that "a QF has no limit on, and the
12 Commission has no right to review, the amount of debt QFs may use for financing,
13 the return on equity, or the overall rate of return."⁴⁵ Thus, the setting of avoided
14 cost rates in this proceeding should not be influenced by a QF's ease in obtaining
15 financing, and the Commission should reject JDA Witness Chilton's arguments that
16 it should investigate the avoided cost rates and terms that would allow QFs to obtain
17 regularly available market rate financing.

18 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

19 **A. Yes.**

⁴⁴ See 18 C.F.R. § 292.601; 18 C.F.R. § 292.602.

⁴⁵ NCUC Sub 148 Order at 35.